MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2021/2022

BFN1024 – PRINCIPLES OF FINANCE

(All sections / Groups)

12 AUGUST 2022
9.00 a.m. - 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 4 pages (excluding the cover page) with 4 Questions only.

2. Answer all questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please print all your answers in the Answer Booklet provided.

Question 1 (25 Marks)

(a) You are required to advise a client who would like to invest in MK Bond. The bond has 8 percent coupon payment that pays semi-annually with 19 years to maturity. The bonds which are listed as investment graded bond currently sell for 102 percent of par. Based on this given information, compute:

(i) The current yield on MK bonds. (2 marks)
(ii) The yield to maturity (YTM) of MK bonds. (6 marks)
(iii) The effective annual yield for MK bonds. (2 marks)

(b) TM Bhd anticipates its dividend at the end of the first year are RM1.60 and that they will grow at 18 percent per year until the end of the fifth year. After that, the dividend will grow at 6 percent per year for the foreseeable future. All dividends are to be discounted back to the present at a 12 percent rate. Based on this information;

(i) Compute dividends for year one through five. All values that you compute must round to two decimals point. (5 marks)
(ii) Compute the present value of the dividends in part (i). (5 marks)
(iii) Project the dividend for the sixth year. (1 mark)
(iv) Estimate the present value of the sixth year's dividend at the end of the fifth year. (2 marks)
(v) Discount back the value found in part (d) for five years at 12 percent. (2 marks)

Question 2 (25 Marks)

As the finance manager, you are considering the following two mutually exclusive projects:

Year	Cash Flow (A)	Cash Flow (B)
0	-$54,000	-$23,000
1	12,700	11,600
2	23,200	11,200
3	27,600	12,500
4	46,500	6,000

Based on the above information, compute:
(i) The payback period for Project A and B. (6 marks)
(ii) The net present value (NPV) for Project A and B. (6 marks)
(iii) The internal rate of return (IRR) for Project A and B. (6 marks)

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(iv) The profitability index (PI) for Project A and B. (6 marks)
(v) Based on the answer in (ii) which project, if any, should the company accept? (1 mark)

Question 3 (25 Marks)

As a fund manager in Bull & Bear Securities, you are given the following information regarding your portfolio.

		Rate of Return if State Occurs		
State of Economy	Probability of State of Economy	Stock A	Stock B	Stock C
Boom	.72	.06	.11	.17
Bust	.28	.19	-.04	.23

Based on the above information, compute the following:

i) The expected return in boom economy for all the three stocks. (4 marks)
ii) The expected return in bust economy for all the three stocks. (4 marks)
iii) The expected return for the portfolio that invest 30 percent each in A and B and 40 percent in C. (5 marks)
iv) The standard deviation for the portfolio that invest 30 percent each in A and B and 40 percent in C. (9 marks)
v) Explain the differences between total risk, unsystematic risk, and systematic risk. Identify which risk is measured by standard deviation and which is measured by beta. (3 marks)

Question 4 (25 Marks)

(a) Aaron's Rentals has 58,000 shares of common stock outstanding at a market price of $36 a share. The common stock just paid a $1.64 annual dividend and has a dividend growth rate of 2.8 percent. There are 12,000 shares of 6 percent preferred stock outstanding at a market price of $51 a share. The preferred stock has a par value of $100. The outstanding bonds mature in 17 years, have a total face value of $750,000, a face value per bond of $1,000, and a market price of $1,011 each. The bonds pay 8 percent interest, semiannually. The tax rate is 34 percent.
(i) Compute the cost of debt after tax. (2 marks)
(ii) Compute the cost of preferred stock. (2 marks)
(iii) Compute the cost of Common stock. (2 marks)
(iv) Compute the firm's weighted average cost of capital. (8 marks)

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(b) Chick 'N Fish is considering two different capital structures. The first option consists of 25,000 shares of stock. The second option consists of 15,000 shares of stock plus $150,000 of debt at an interest rate of 7.5 percent. Ignore taxes. Compute the break-even level of earnings before interest and taxes (EBIT) between these two options.

(4 marks)

(c) Consider the following financial statement information for Kirkwood United.

Item	Beginning	Ending
Inventory	$10,407	$10,822
Accounts receivable	6,840	7,301
Accounts payable	7,221	6,948
Net sales	$146,400	
Cost of goods sold	82,500	

Assume all sales are on credit. Compute how long is the cash cycle.

(7 marks)

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APPENDIX 1: FORMULAS

$$C\left[\frac{1-\frac{1}{(1+YTM)^t}}{YTM}\right]+\frac{F}{(1+YTM)^t}$$

$$\frac{i+\frac{M-P_0}{n}}{\frac{M+P_0}{2}}$$

$$\hat{P}_0=\sum_{t=1}^{\infty}\frac{D_t}{(1+R)^t}$$

$$E(R)=\sum_{i=1}^{n}p_iR_i$$

$$\sigma^2=\sum_{i=1}^{n}p_i(R_i-E(R))^2$$

$$E(R_P)=\sum_{j=1}^{m}w_jE(R_j)$$

$$WACC = E/V \times R + P/V \times R + D/V \times R\ (1 - T)$$

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